

CHEVRON RICHMOND REFINERY

TENTATIVE ORDER AND NPDES PERMIT

PERMIT

REQUEST FOR *COMPLIANCE SCHEDULE*

AND DEMONSTRATION OF INFEASIBILITY

TO ACHIEVE IMMEDIATE COMPLIANCE WITH CALCULATED

EFFLUENT LIMITATION FOR

TMDL Pesticides and PCBs

Executive Summary

Pursuant to discussions with staff and to §2.1 of the SWRCB's *Policy for Implementation of Toxics Standard for Inland Surface Waters, Enclosed Bays, and Estuaries of California* [the "SIP"], Chevron submits as an addendum to its NPDES permit application a request for a compliance schedule and Chevron's documentation that it is infeasible to meet the final limits for pesticides proposed in the RWQCB's tentative order.

Infeasibility Demonstration.

In support of its request, Chevron submits the following demonstration that it is infeasible to achieve immediate compliance with the final limits (see below) for the following chlorinated pesticides, and PCBs: chlordane, 4,4-DDT, 4,4-DDE, 4,4-DDD, and Dieldrin.

As defined in the SIP, infeasible means

“not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors”

In this case, the SIP defines a “reasonable period of time” to be “immediate.” Therefore, in cases where, as here, the actions needed to achieve compliance could not be implemented by the permit’s effective date, they could not be completed within a reasonable period of time. In addition to this timing factor, possible actions to achieve compliance must be evaluated in light of the defined factors to determine their feasibility.

Staff has calculated a proposed final Water Quality Based effluent of the referenced TMDL pesticides and PCBs. Chevron’s performance history relating to these constituents reflect that Chevron’s effluent would likely not meet these limits, if imposed. Further, as explained in greater detail below, Chevron has undertaken a variety of efforts to date to reduce its discharge loading as much as

possible. Chevron has already taken steps, as described elsewhere in this document, to reduce the discharge of contaminants. We can not comply with the proposed final limits tomorrow or in the near future for the following reasons:

- Source on the contaminant is currently unknown,
- The technology currently in place is already thought to be the best available and we are not aware of a better technology to provide
- If any major projects were to be generated as the result of identifying additional practical treatment or source control technologies, we would have to go through a permitting process and might trigger CEQA and an environmental impact
- A detailed program to develop alternative feasibility technologies may need to be considered

Given the efforts to date, it is unclear what additional actions and measures may be necessary to meet these limits. A number of steps will be needed to determine what actions may be necessary and feasible in order to achieve compliance with these limits. Those steps will involve additional studies to evaluate future options, and those studies may demonstrate that new technology or new methods are necessary, appropriate and feasible. For example, Chevron may evaluate options, using criteria such as the following:

- Known, demonstrated technology that is available and has been demonstrated in refineries or related industries;
- Ability to achieve required effluent levels;
- Ability to pilot or demonstrate the technology in Chevron's plant;
- Implementation time for a given technology;
- Feasibility and cost effectiveness.

Certainly, carrying out these steps will be costly and time-consuming and may require additional environmental analyses and permits. In any case, they can not be completed and implemented in time for this permit to go into effect. For these reasons, it is infeasible to achieve immediate compliance with the proposed effluent limits for these referenced constituents.

These pesticides are CWA §303(d)-listed constituents. This request is specific to PCBs, and the following chlorinated pesticides: chlordane, 4,4-DDT, 4,4-DDE, 4,4-DDD, and Dieldrin. These pesticides and PCBs in the refinery wastewater are analytically not detectable.

For these pesticides, which are §303(d)-listed constituents, ultimately a final limit will be based on a TMDL and a waste load allocation (WLA) for the refinery. Notwithstanding that the TMDL has not been completed, the permit writer has

proposed a WQBEL for these compounds in the tentative order as shown below. Absent any performance data, Chevron can not demonstrate that it can consistently comply with either limit today or in the near future.

Compound	AMEL, ug/L	MDEL, ug/L
Chlordane	0.00059	0.00118
4,4-DDT	0.00059	0.00118
4,4-DDE	0.0006	0.0012
4,4-DDD	0.00059	0.00118
PCBs (total)	0.00017	0.00034

In the following sections Chevron will document:

- A. Diligent efforts made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream, and the results of those efforts;
- B. Source control and/or pollution minimization efforts currently underway or completed;
- C. A proposed schedule for potential additional or future source control measures, pollution minimization actions, or waste treatment;
- D. A demonstration that the proposed schedule is as short as practicable.

A. Chevron's Efforts to Quantify Pollutant Levels and Sources.

Final Limits and Effluent Data. The proposed WQBEL final limits, and the refinery's historical effluent data, for pesticides are:

Compound	AMEL, ug/L	MDEL, ug/L	Analytical PQL	Over/Under the PQL
Chlordane	0.00059	0.00118	0.12	0/8
4,4-DDT	0.00059	0.00118	0.05	0/9
4,4-DDE	0.0006	0.0012	0.05	0/9
4,4-DDD	0.00059	0.00118	0.05	0/9
PCBs (total)	0.00017	0.00034	100	0/5

Because the PQL does not demonstrate that we can meet the proposed final limits, these data demonstrate that the final limits can not currently be met with confidence.

Sources:

PCBs are found in the Refinery in electrical transformer insulating oil within stored transformers and capacitors. The manufacture of PCB was discontinued in the United States after July 2, 1979. The Toxic Substances and Control Act (TSCA) has set the standards for storage, labeling, inspection, transportation

and disposal of PCB laden oils, and containers with PCB oils. The State of California also regulates equipment with greater than 50 ppm PCB. The Refinery has no stored transformers with a PCB level greater than 500 ppm. Additionally no PCB has been found in groundwater sampling.

There are no known sources of the listed pesticides in the refinery. Manufacture of these pesticides has been banned for many years. Chevron does not use them.

The permit writer has suggested that because Chevron Chemical Company at one time manufactured pesticides, that there is reasonable potential for them to be present in Chevron's effluent at levels that may cause or contribute to an exceedance of water quality standards. Chevron disputes this finding based on the following facts:

- None of the listed constituents are detected in our effluent
- Pesticides were never manufactured nor formulated at the Richmond Refinery.
- Pesticides were formulated at the former Chevron Chemical Hensley St. facility, but wastewaters associated with this operation were incinerated and contaminants, if present, were destroyed by a factor of at least 99.99%.
- Blowdown from this incinerator was routed through the refinery effluent system but it was a small fraction of flow in this system.
- Pesticides have not been manufactured or formulated at the Hensley St. facility for nearly a decade and the incinerator was shut down more than five years ago.
- Chevron has submitted years and years of data showing that these pesticides are not detected in the effluent. Frankly, if staff don't find these data reliable, we wonder why they were requested.
- The order, findings, and Fact Sheet do not explain, nor is there a logical explanation, for how pesticides can be present in the effluent today, from an incinerator with >99.99% destruction, when no wastes have been received from this incinerator for several years.

Based on this discussion, we can not identify any sources of these pesticides in our refinery.

B. Minimization / Reduction Practices:

We do not use, formulate, manufacture, or package any of the listed pesticides, nor have we for many years, since their manufacture was banned.

PCBs and PCB containing equipment are managed through a refinery instruction (PCB Dielectric Device Requirements and Control) in accordance with applicable regulations.

C. Pollution Minimization Proposal and Schedule

In addition to supporting the development of a TMDL for PCBs and chlorinated pesticides, The Discharger will give a written annual update to the RWQCB staff to document the discharger's participation toward progress made in development of the TMDL.

Chevron will conduct any additional source control or pollution minimization studies and implement their results in accordance with California Water Code §13263.3 and §2.1 of the SIP relating to Pollution Prevention Plans. Section 13263.3 establishes a separate process outside of the NPDES permit process for the preparation, review and approval and implementation of such plans.

D. Why schedule is as short as practical.

The Discharger and the RWQCB staff both recognize that the development of TMDLs will likely take longer than the permit term. The schedule for adoption of the TMDL determines the length of the compliance schedule and, on that basis, is as short as possible. Discharger agrees to work with the staff to again evaluate the length of the compliance schedule during consideration of the Discharger's next NPDES permit.